

09/591437

### ABSTRACT OF DISCLOSURE

An optical device includes a ferroelectric liquid crystal material. This optical device has a first and a second substrate. A first alignment treatment is applied to a surface of the first substrate, the first alignment treatment being intended to induce an orientation of at least a portion of the ferroelectric liquid crystal material along a first alignment direction with a first pretilt angle  $\alpha_1$  with respect to a plane parallel to the first substrate. A second alignment treatment is applied to a surface of the second substrate, the second alignment treatment being intended to induce an orientation of at least another portion of the ferroelectric liquid crystal material along a second alignment direction with a second pretilt angle  $\alpha_2$  with respect to a plane parallel to the second substrate. The optical device further includes an arrangement for securing the first substrate with respect to the second substrate in such a way that the surfaces of the first and second substrates onto which the first and second alignment treatments were applied, respectively, are spaced apart, generally parallel and facing each other. In addition, a projection of the first alignment direction onto the treated surface of the first substrate makes a non-zero angle  $\Omega$  with respect to a projection of the second alignment direction onto the treated surface of the first substrate such that, the ferroelectric liquid crystal material being injected between the first and second substrates, the optical device is free of chevron structures without a need to otherwise apply an additional treatment to the optical device.